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REMARKS/ARGUMENTS

This application has been reconsidered carefully in light of the Election/Restriction Requirement Office Action dated 12 September 2005, the Election/Restriction Requirement Office Action dated 22 December 2005, the Office Action dated 19 April 2006, the Election/Restriction Requirement Office
5 Action dated 13 October 2006, the Office Action dated 07 May 2007 and the outstanding Office Action dated as mailed on 12 December 2007. A careful reconsideration of the application by the Examiner in light of the foregoing amendments and the following remarks is respectfully requested.

This response is timely filed as it is accompanied by an appropriate
10 Petition for Extension of Time for Filing of Response under Rule 1.136(a) and the associated fee.

No additional claim fee is believed due as a result of this Amendment because neither the total number of pending claims nor the number of pending independent claims is believed to exceed the total number and the number of
15 independent claims, respectively, for which fees have previously been paid. If, however, it is determined that such a fee is properly due as a result of this communication, the Commissioner is hereby authorized to charge payment of such fees or credit any overpayment, associated with this communication, to Deposit Account 19-3550.

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Amendment to the Claims

By the above,

1. claim 18 has been rewritten to improve its form and to make more clear the invention which Applicants regard as their invention, and

5 2. claims 32-38 have been added to more fully and completely claim the disclosed subject matter, particularly in light of the present withdrawal by the Examiner of the indication of allowable subject matter from the prior Office Action.

10 More specifically, independent claim 18 has been rewritten to better ensure the patentable consideration of various of the limitations appearing therein, including limitations regarding:

1. the polymeric binder adheres the ignition composition to an associated inflator apparatus surface;
2. the ignition composition adhered to the associated inflator apparatus surface forms an igniter substance having a surface area;
- 15 3. the thermal decomposition of the polymeric blowing agent forms a porous igniter substance free of the thermally decomposable blowing agent and comprising the fuel material, the oxidizer and the polymeric binder; and

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4. the porous igniter substance has an increased surface area as compared to the igniter substance prior to decomposition of the thermally decomposable blowing agent.

Independent claim 18 has also been rewritten for improved clarity that the composition includes a thermally decomposable blowing agent.

Newly added claims 32 and 33 are indirectly dependent on claim 18 and find general support throughout the original application such as in original claim 14, for example.

Newly added claim 34 is an independent claim. Claim 34 finds general support throughout the original application and is similar to original claim 1. Claim 34, moreover, clarifies that the fuel is selected from a group consisting of metals, metal hydrides and metalloids and that the claimed composition includes at least about 15 composition weight percent of fuel material. Such limitations find support in the original specification such as at page 11, line 12 through page 12, line 7. Claim 34 has also been written in a manner similar to presently amended claim 18 to better ensure that the various limitations appearing therein (such as discussed above) are patentably considered.

Newly added claims 35 and 36 are dependent on claim 34 and find general support throughout the original application such as in original claim 14, for example.

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Newly added claim 37 is an independent claim. Claim 37 finds general support throughout the original application and is similar to original claim 1. Claim 37, like claim 34 discussed above, clarifies that the fuel is selected from a group consisting of metals, metal hydrides and metalloids and that the claimed composition includes at least 15 composition weight percent of fuel material. Claim 37 further requires that the ignition composition about 50 to about 85 composition weight percent of an oxidizer. Support for this limitation can be found in the original application such as at page 12, lines 14-16, for example. Claim 37 also further requires that the polymeric binder comprises a modified cellulose polymer including hydroxypropyl cellulose, such as set forth in original claim 10. Claim 37 still further requires the associated inflator apparatus surface to be selected from the group consisting of at least a portion of a surface of a gas generant wafer or tablet, at least a portion of an interior surface of an inflator device, at least a portion of a surface of an electrical squib, at least a portion of a surface of a damper pad, and combinations thereof, such as set forth in original claim 14. Claim 37 has also been written in a manner similar to presently amended claim 18 to better ensure that the various limitations appearing therein (such as discussed above) are patentably considered.

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Newly added claim 38 requires that the associated inflator apparatus surface is a gas generant material and the polymeric blowing agent thermally decomposes at a temperature less than the autoignition temperature of the gas generant material. Such limitation finds particular support such as at page 14, lines 9-13 of the original application.

No new matter has been added by way of the amended or added claims.

Interview Summary

As a preliminary matter, the undersigned wishes to thank Examiner Felton for the courtesies extended during the above-identified telephonic interview.

In that interview, the Examiner confirmed that reference on page 3 of the Office Action to the “last full paragraph of claim 1” was intended to and should reference claim 18 and not claim 1. In the interview, various possible ways of rewriting independent claim 18 to ensure the patentable consideration of various of limitations appearing therein, particularly limitations appearing in the last paragraph of the then pending claim 18. While no agreement was reached on a suitable manner of rewriting claim 18 to ensure the patentable consideration of various of limitations appearing therein, after further investigation by Examiner Felton, Examiner Felton conceded that there is no MPEP provision specifically directed to a concept of

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“statements of intended use” but referred the undersigned to MPEP §2111.04 entitled
“‘Adapted to,’ ‘Adapted for,’ ‘Wherein,’ and ‘Whereby’ Clauses.” Moreover,
Examiner Felton referred the undersigned to the concept of original presentation as
a basis for the examiner to refuse the present entry of process claims into the
5 application.

Allowable Subject Matter

The Office Action states that the indicated allowability of claims 18-24
and 28-31 has been withdrawn “in view of the newly discovered reference(s) to
Hughes, Donaghue, Taylor, and Mackenzie.” [NOTE: The Office Action referral to
10 “Mackenzie” appears to have been an inadvertent error as both the subsequent
rejections appearing in the Office Action and the PTO-892 form attached thereto both
instead refer to Narin et al. The following response is written directed to the
rejections stated in the Office Action. If, however, the Office Action was intended
to include one or more rejections based on “Mackenzie”, the Examiner is requested
15 to withdraw the subject Office Action and issue a new Action.]

The withdrawal of the prior indication of allowability is noted.

Claims 18-29 and 31-38 remain in the application with claims 19, 25
and 27-29 presently withdrawn from consideration.

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Election/Restrictions

The Office Action states that claims 19, 25 and 27-29 have been withdrawn from further consideration “as being drawn to a nonelected species of organic fuel as the additional fuel and the desensitizing agent which was not elected.”

5 Claim 19 requires the ignition composition to additionally comprise a gas generating organic fuel.

 Claim 27 requires the ignition composition to additionally comprise a desensitizing agent, with claim 28 dependent on claim 27 and further limiting the relative amount of the desensitizing agent and claim 29 also dependent on claim 27
10 and requiring that the desensitizing agent is bentonite clay.

 Reconsideration of the withdrawal from consideration of claims 19 and 27-29 is respectfully requested.

 It is initially noted that the Examiner had never previously required an election relative to a species of “additional fuel” or the presence of a “desensitizing
15 agent” or a specific such “desensitizing agent.” In this regard the Examiner’s attention is directed to the prior Office Action dated 13 September 2005 which states:

20 Applicant is required under 35 USC 121 to elect a single species based upon the composition of the igniter substance, i.e., a single polymeric binder, blowing agent, fuel, and oxidizer, and a single associated inflator apparatus surface, for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

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Nowhere was applicant required to elect a species of “additional fuel” or the presence of a “desensitizing agent” or a specific such “desensitizing agent.”

Moreover, the Examiner’s attention is also directed to MPEP §818.02 entitled, “Election Other Than Express” which states:

5 Election may be made in other ways than expressly in reply to a requirement as set forth in MPEP §§ 818.02(a) and §§ 818.02(c).

MPEP §818.02(a), entitled, “By Originally Presented Claims” further specifically provides:

10 The claims originally presented and acted upon by the Office on their merits determine the invention elected by an applicant in the application, and in any request for continued examination (RCE) which has been filed for the application. Subsequently presented claims to an invention other than that acted upon should be treated as provided in MPEP §§ 821.03.

15

MPEP §818.02(c), entitled, “By Optional Cancellation of Claims” further specifically provides:

20 Where applicant is claiming two or more inventions (which may be species or various types of related inventions) and as a result of action on the claims, he or she cancels the claims to one or more of such inventions, leaving claims to one invention, and such claims are acted upon by the examiner, the claimed invention thus acted upon is elected.

25 In the present case, not only have claims 19 and 27-29 previously been acted upon by the Examiner, the Examiner in the preceding action had identified claims 19 and 27-29 as “**allowed**”.

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In view of the above, the Examiner is respectfully requested to reconsider the withdrawal of claims 19 and 25-27 and, upon such reconsideration, rejoin claims 19 and 25-27.

Claim Rejections - 35 U.S.C. §103

5 1. **Claims 18 and 20-23 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,340,175 to Hughes et al. (Hughes) in view of U.S. Patent 4,151,022 to Donaghue et al. (Donaghue).**

Such rejections are respectively traversed to the extent they may be sought to be applied to the present claims.

10 By the above, independent claim 18 has been rewritten to make clear that in the claimed ignition composition the polymeric binder adheres the ignition composition to an associated inflator apparatus surface and the ignition composition adhered to the associated inflator apparatus surface forms an igniter substance having a surface area. Further, rewritten claim 18 makes clear that thermal decomposition
15 of the polymeric blowing agent forms a porous igniter substance free of the thermally decomposable blowing agent and comprising the fuel material, the oxidizer and the polymeric binder and that the porous igniter substance has an increased surface area as compared to the igniter substance prior to decomposition of the thermally decomposable blowing agent.

20 It is respectfully submitted that such an ignition composition is nowhere shown by Hughes alone or in combination with Donaghue.

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In this regard it is noted that neither Hughes nor Donaghue show, disclose or suggest an ignition composition adhering or adhered onto an associated inflator apparatus surface. In particular, Hughes simply discloses that the foamed igniter material thereof can be used to “surround” a squib. [See Hughes, column 2,
5 lines 66-67.] As Donaghue is generally directed to explosive compositions, as opposed to ignition compositions for automotive safety inflatable restraint systems, Donaghue nowhere shows or suggests an inflator apparatus surface let alone an ignition composition adhering or adhered onto an associated inflator apparatus surface, as required by the claimed invention.

10 In the Office Action, the Examiner asserts and the undersigned agrees:

If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695,698, 227 USPQ 964,966 (Fed. Cir. 1985).

15 However, even assuming solely for the sake of argument that the claims are product-by-process claims, as noted above that neither Hughes nor Donaghue, alone or in combination, show or suggest an ignition composition adherable, adhering or adhered onto an associated inflator apparatus surface. Thus the alleged claimed product is not shown or suggested either as required by the claim or from some
20 “different” process.

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The Examiner has also asserted that “most of the last full paragraph of claim 18 [1] consists of statements of intended use and product by process limitations which are not given patentable weight.” The Examiner proceeds to argue:

5 Language that suggests or makes optional but does not require steps to be preformed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation (i.e. “capable of”, “effective to”, etc.) These clauses are essentially method limitations or statements of intended or desired use and do not serve to patentably distinguish the claimed structure over that of the reference. See *In re Pearson*, 181 USPQ 641; *In re Yanush*, 177 USPQ 705; 10 *In re Finsterwalder*, 168 USPQ 530; *In re Casey*, 512 USPQ 235; *In re Otto*, 136 USPQ 458 and *Ex parte Masham*, 2 USPQ 2nd 1647. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable eve though the 15 prior product was made by a different process. *In re Thorpe*, 777 F.2d 695,698, 227 USPQ 964,966 (Fed. Cir. 1985).

It is noted that MPEP §2111.04 entitled “‘Adapted to,’ ‘Adapted for,’ ‘Wherein,’ and ‘Whereby’ Clauses” and to which MPEP section the Examiner specifically referred the undersigned in the above-identified telephone interview 20 specifically states:

The determination of whether each of these clauses is a limitation in a claim depends on the specific facts of the case. In *Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1329, 74 USPQ2d 1481, 1483 (Fed. Cir. 2005), the court held that **when a “‘whereby’ clause states a condition that is material to patentability, it cannot be ignored in order to change the substance of the invention.”** *Id.* [Emphasis added.] 25

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Thus, the MPEP specifically and expressly **DOES NOT** sanction the total and indiscriminant disregard of such clauses but rather **requires consideration of such clauses where a condition material to patentability is there stated.**

Independent claim 18 has been rewritten to make clear that in the
5 claimed ignition composition the polymeric binder adheres the ignition composition
to an associated inflator apparatus surface and the ignition composition adhered to the
associated inflator apparatus surface forms an igniter substance having a surface area.
Further, rewritten claim 18 makes clear that thermal decomposition of the polymeric
blowing agent forms a porous igniter substance free of the thermally decomposable
10 blowing agent and comprising the fuel material, the oxidizer and the polymeric binder
and that the porous igniter substance has an increased surface area as compared to the
igniter substance prior to decomposition of the thermally decomposable blowing
agent.

Nowhere does Hughes alone or in combination with Donaghue show
15 or suggest an ignition composition adherable, adhering or adhered onto an associated
inflator apparatus surface.

In view of the above, independent claim 18 and claims 20-23 dependent
thereon are believed to be patentable over the combination of Hughes and Donaghue
and notification to that effect is solicited.

2. **Claims 24 and 31 were rejected under 35 U.S.C. §103(a) as being unpatentable over Hughes in view of Donaghue and further in view of U.S. Patent 6,096,147 to Taylor et al. (Taylor).**

5 Such rejections are respectively traversed to the extent they may be sought to be applied to the present claims.

 Claims 24 and 31 are dependent on claim 18. As the proposed further combination of Taylor with Hughes and Donaghue does not overcome the above discussed deficiencies of Hughes and Donaghue relative to underlying claim 18, these
10 dependent claims are believed to be allowable over the proposed combination of Hughes, Donaghue and Taylor and notification to that effect is solicited.

3. **Claim 26 was rejected under 35 U.S.C. §103(a) as being unpatentable over Hughes in view of Donaghue and further in view of U.S. Patent 3,293,108 to Nairn et al. (Narin).**

15 Such rejections are respectively traversed to the extent they may be sought to be applied to the present claims.

 Claim 26 is dependent on claim 18. As the proposed further combination of Narin with Hughes and Donaghue does not overcome the above discussed deficiencies of Hughes and Donaghue relative to underlying claim 18,
20 claim 26 is believed to be allowable over the proposed combination of Hughes, Donaghue and Narin and notification to that effect is solicited.

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Withdrawn Claims

Claims 19, 25 and 27-29 are presently withdrawn from consideration.

Claims 19, 25 and 27-29 are dependent, directly or indirectly, on claim 18.

As submitted above, claim 18 is believed to be patentable over the prior art of record

5 and thus in condition for allowance. In view thereof, withdrawn claims 19, 25 and 27-29 are also believed to be in condition for allowance and notification to that effect is solicited.

Newly Added Claims

Claims 32 and 33, indirectly dependent on claim 18, have been added.

10 As claim 18 is believed to be patentable over the prior art of record for at least the reasons discussed above, these dependent claims are also believed to be patentable over the prior art of record and notification to that effect is solicited.

Claim 32 (consistent with original claim 14) further requires that the associated inflator apparatus surface is selected from the group consisting of at least
15 a portion of a surface of a gas generant wafer or tablet, at least a portion of an interior surface of an inflator device, at least a portion of a surface of an electrical squib, at least a portion of a surface of a damper pad, and combinations thereof. Claim 33 requires that the associated inflator apparatus surface is a gas generant material.

Such claimed inventions are nowhere shown or suggested by the art of
20 record. For example, while Taylor discloses an ignition enhanced gas generant

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nowhere does Taylor disclose or suggest coating a gas generant material with a porous igniter material. An ignition composition that adheres onto an inflator apparatus surface such as a gas generant material and forms a porous igniter substance is not shown or suggested by the prior art.

5 Independent claim 34 with claims 35 and 36 dependent thereon and independent claim 37 with claim 38 dependent thereon have also been added.

 Newly added independent claim 34 requires the ignition composition inclusion of a polymeric binder that adheres the ignition composition to an associated inflator apparatus surface and to form an igniter substance on the associated inflator
10 apparatus surface; and the ignition composition inclusion of a thermally decomposable blowing agent, thermal decomposition of the thermally decomposable blowing agent forms a porous igniter substance free of the polymeric blowing agent and comprising the fuel material, the oxidizer and the binder, the porous igniter substance has an increased surface area as compared to the igniter substance prior to
15 thermal decomposition of the thermally decomposable blowing agent.

 An ignition composition that includes a polymeric binder that adheres the ignition composition to an associated inflator apparatus surface and to form an igniter substance on the associated inflator apparatus surface and also includes a thermally decomposable blowing agent, thermal decomposition of the thermally
20 decomposable blowing agent forms a porous igniter substance free of the polymeric

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blowing agent and comprising the fuel material, the oxidizer and the binder, the porous igniter substance has an increased surface area as compared to the igniter substance prior to thermal decomposition of the thermally decomposable blowing agent is not shown or suggested by the cited art.

5 As claim 34 is believed to be patentable over the prior art of record for at least the reasons discussed above, claims 35 and 36 dependent thereon are also believed to be patentable over the prior art of record and notification to that effect is solicited.

10 Moreover, added claim 35, similar to claim 32 further requires that the associated inflator apparatus surface is selected from the group consisting of at least a portion of a surface of a gas generant wafer or tablet, at least a portion of an interior surface of an inflator device, at least a portion of a surface of an electrical squib, at least a portion of a surface of a damper pad, and combinations thereof. Claim 36, similar to claim 33, requires that the associated inflator apparatus surface is a gas
15 generant material.

 Thus, claims 35 and 36 are believed to be further patentable over the prior art of record and notification of the allowance of these claims is solicited.

 As submitted above, such claimed invention are not shown or suggested by the cited art.

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Newly added independent claim 37 requires the ignition composition inclusion of a modified cellulose polymer polymeric binder including hydroxypropyl cellulose and adheres the ignition composition to an associated inflator apparatus surface selected from the group consisting of at least a portion of a surface of a gas generant wafer or tablet, at least a portion of an interior surface of an inflator device, at least a portion of a surface of an electrical squib, at least a portion of a surface of a damper pad, and combinations thereof to form an igniter substance on the associated inflator apparatus surface; and the ignition composition inclusion of a thermally decomposable blowing agent, thermal decomposition of the thermally decomposable blowing agent forms a porous igniter substance free of the thermally decomposable blowing agent and comprising the fuel material, the oxidizer and the binder, the porous igniter substance has an increased surface area as compared to the igniter substance prior to thermal decomposition of the thermally decomposable blowing agent

Such an ignition composition is not shown or suggested by the cited art.

As claim 37 is believed to be patentable over the prior art of record for at least the reasons discussed above, claim 38 dependent thereon is also believed to be patentable over the prior art of record and notification to that effect is solicited.

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Claim 38 further requires that the associated inflator apparatus surface is a gas generant material and the polymeric blowing agent thermally decomposes at a temperature less than the autoignition temperature of the gas generant material.

Such an ignition composition is nowhere shown or suggested by the cited art. For example, the prior art fails to show or suggest an ignition composition that adheres and forms a porous igniter substance on a gas generant material form of an associated inflator apparatus through the thermal decomposition of a thermally decomposable blowing agent

Thus, claim 38 is believed to be further patentable over the art of record and notification of the allowance thereof is solicited.

Conclusion

It is believed that in view of the above, all pending claims are in condition for allowance and notification to that effect is solicited. However, should the Examiner detect any remaining issue or have any question, the Examiner is kindly requested to contact the undersigned, preferably by telephone, in an effort to expedite examination of the application.

Respectfully submitted,



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